**Day in the Life of the Hudson River 10/20/16 Data**

**(Saltfront ~ RM 83)**

**RIVER MILE 117.5 (a)**

**Shelley Forester, Cary Institute of Ecosystem Studies**

**Sandra Fischer, Chatham High School, Catham, NY**

**42 students, Environmental Science, Ecology Club, 6 adults**

**Latitude – N 42**°**25’ Latitude – W -73**°**80’**

**Location:** Hudson River Waterfront Park, City of Hudson, Columbia County

**Area:** 1st dock in thewaterfront propertyused for fishing, marina, picnics, large grassy area, just north of the old quarry site, has a parking lot –

**Surrounding Land Use:** 50% Industrial/Commercial, 50% Urban Industrial

**Sampling Site:** waterfront with banks 100% altered to include wooden & concrete bulkheads and large riprap on shoreline, pier, grassy, parking lot

**Plants in area**: 1% water chestnut

**Water -** Calm

**River Bottom** – bottom rocky

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical***  |   |  |  |  |
| Air Temperature | 9:04 AM10:30 AM12:39 PM | 13.7°C15°C18.5°C | °F |  |
| Cloud Cover | All Day | Overcast >75%  |  |  |
| Wind –  | **Time**9:48 AM | **Beaufort**0 | **MPH**None | **Direction**none |
| Weather today | Brief showers noon - 12:30 PM  |  |  |
| Weather recently | Warm, sunny and very dry  |
| Water  | calm |  |  |  |
| ***Water Temperature –*** | 9:22 AM10:39 AM12:41 PM | 16.6 °C16.917 | 62°F62°F63°F |   |
| ***Turbidity –***  | 9:13 AM | 120 cm130 cm110 cm |  | ***Secchi – 120 cm avg*** |
| ***You can't see the bottom but short tube is clear – not very turbid*** | 9:13 AM | 40 JTU00  |  | ***Short site tube – 13.3 JTU avg.***  |
| ***Chemical*** | **Time** | **Temp** **C** | **DO ppm** | **% sat.** |
| DO -  | 9:22 AM10:25 AM12:50 PM | 16.616.816.9 | 8.07.04.0 | 40%45%45% |
| pH – *Color Match* | 9:16 AM9:52 AM10:42 AM 12:02 PM | 8.27.967.98.06 |  |  |
| **Salinity Quantabs**  | **Time**10:08 AM 10:40 AM12:02 PM12:15 PM | **Quantab #**1.61.41.51.4 | **Chloride ppm**40 ppm34 ppm37 ppm34 ppm | **Total Salinity** 72 ppm61 ppm67 ppm61 ppm |
| **Alkalinity** | 10:50 AM12:01 PM12:15 PM | 40 ppm2 ppm30 ppm |  |  |
| ***Fish Catch***Seine net 20 feet X 4 ft., 1.4 inch mesh  | ***Time*** | ***Species*** | ***Total Catch for Day***  | ***Largest Catch in any one Seine*** |
| ***DIV - 7******TOTAL - 734*** |  | *Banded Killifish*  | *518* | 236 |
|  |  | *Spottail Shiner* | *139* | 78 |
|  |  | *Bluegill Sunfish* | *44* | 44 |
|  |  | *White Perch* | *16* | 16 |
|  |  | *Mummichog* | *12* | 12 |
|  |  | *Bay Anchovy* | *4* | 3 |
|  |  | *Unidentified*  | *1* | 1 |
| ***Tides*** | 9:32 AM10:56 AM1:00 PM | 80 cm75 cm50 cm | Set pointFallingFalling | *On a dock measuring down to water* |
| ***Currents***  | **Time** | **Cm/30sec** | **Cm/sec** | **Kts - E/F/S** |
|  | 9:00 AM. | 30/30 sec | 1cm/sec | 0.19 kts Ebb |
|  | 10:00 AM | 495/30 sec | 16.5 cm/sec | 0.32 kts Ebb |
|  | 12:40 PM | NR |  | Ebb |
| ***Core Sample*** | ***Length/*** | ***Rare*** | ***Common***  | ***Abundant*** |
|  | - 30.5 cm- H2S smell - oil top  | GravelPebbles  | Sand | ClayMud |
| ***Traffic - commercial*** | ***Time***  | ***Name*** | ***Color*** | ***Direction/Loaded or Light*** |
|  | 9:24 AM | USB Seattle  | Red | Southbound, light |
|  | 10:15 AM  | Noelle Cutler | Black | Southbound, light |
|  | 10:22 AM | No Name | Black | Southbound, light |
| ***Recreational*** | 1:02 PM | Boat | White | Southbound |
|  | 1:03 PM | Boat  | White  | Northbound |
| ***Other Observations***  | Not overgrown, public park.Grassy peninsula with rocky shore, 1 pear, boat launchThe area is inlets with docks so perhaps the water is not moving as freely which might affect sampling. There is a creek from an industrial site flowing into the riverThere is rock processing next door as well.A few seagulls in the area |